

REMARKS

Claims 1-10 are currently pending in the application. The application and claims have not been amended in response to the present Office Action. Therefore, no new matter has been added.

Claim Rejections – 35 USC § 102

The Examiner rejected claims 1-3 and 10 under 35 USC § 102(b) as being anticipated by U.S. Patent No. 3,499,571 (Mortara). The Examiner argues that Mortara discloses each and every element in currently pending claims 1-3 and 10. Applicants respectively traverse this rejection.

Referring to Figs. 1-6, Mortara is directed to a pressure cooker including a body 1 and a lid 2 that seals an inner edge of the cooker. The lid 2 includes a sealing gasket 3 at its peripheral edge that engages the inner edge of a mouth of the body 1 to seal the mouth for pressure cooking. A U-shaped stirrup piece 4 is secured to a central portion of the lid 2 and includes a slot 5, 5' at ends of its prongs. A secondary lid or crossbeam 6 is slidably mounted to the two prongs above the lid 2. A lever 12, 13 is secured to the stirrup piece 4 by the pin 14 that engages the slots 5, 5'. The lever 12, 13 and includes a first arm portion 12 and a second arm portion 13. In a relaxed position (Fig. 1), the second arm portion 13 is generally parallel to the crossbeam 6 and in a working or engaged position (Fig. 2), the first arm 13 is generally perpendicular to the crossbeam 6 to push the crossbeam 6 toward the body 1. A leaf spring 7 is mounted between the crossbeam 6 and lid 2 such that its peripheral legs are typically in contact with the lid 2 and its central portion is typically in contact with a central portion of the crossbeam 6. Several plugs 8, 9, are mounted within bores 10, 11, in the lid 2 and include relatively large heads that are located on an upper side of the bores 10, 11.

In use, water and a foodstuff are inserted into the mouth of the body 1 and the lid 2 is engaged with the mouth such that the gasket 3 is in engagement an inner edge of the mouth. In the relaxed position, the second arm 13 is generally parallel to the crossbeam 6 and the first arm 12 is generally perpendicular to the crossbeam 6 such that the leaf spring 7 urges the crossbeam

6 away from the lid 2 and is not in contact with the plugs 8, 9. Accordingly, if pressure is built up in the body 1 the pressure may escape by lifting the weight of the plugs 8, 9. To prepare for cooking, a user grasps the first arm 12 and pivots the first arm to a position generally parallel to the crossbeam 6 about the pin 14 such that the second arm 13 urges the crossbeam 6 downwardly toward the body 1 until the second arm 13 is generally perpendicular to the crossbeam 6 in the working position. The crossbeam 6 engages an outer mouth edge of the body 1 and urges the leaf spring 7 toward the lid 2. In addition, in this position, the gasket 3 is urged into facing engagement with the inner edge of the mouth to seal the body 1. The leaf spring 7 urges the large heads of the plugs 8, 9 onto the lid 2 to seal the bores 10, 11 by applying a downward force on the plugs 8, 9. The body 1 is heated to vaporize the water and heat the foodstuff therein. When a predetermined pressure within the body 1 is reached, the pressure pushes the plugs 8, 9 upwardly against the force of the leaf spring 7 to relieve some of the pressure through the bores 10, 11. When the pressure within the body 1 decreases to the predetermined pressure, the leaf spring 7 urges the plugs 8, 9 back onto the lid 2 to seal the bores 10, 11.

Referring to Figs. 1 and 2, the present application is directed to a vacuum device having an activating device for a cover 15 of a container 14. The container 14 includes an opening face 14a and the cover 15 selectively covers the opening face 14a. A pivot arm 16 is coupled to the cover 14 and a pivot unit 17 drives the pivot arm 16 so that the cover 15 opens and closes the opening face 14a of the container 14. A one-piece plate spring 18 is fixed at a first, central portion 18b to the pivot arm 16 and is fixed at a second, edge portion 18a to the cover 15. A portion of the plate spring 18 between the first and second portions 18b, 18a is bent, preferably at a bending angle θ . The bending angle θ is typically ninety degrees (90°) or larger and in the most preferred embodiment is approximately one hundred five degrees (105°).

Claims 1, 2 and 10 are directed to an activating device for a cover or a vacuum device and include the features of a container or vacuum chamber having an opening face, a cover that covers the opening face, a pivot arm coupled to the cover, a pivot unit driving the pivot arm and a plate spring having a first portion fixed to the pivot arm and a second portion fixed to the cover.

Applicants respectfully submit that Mortara does not teach, suggest or disclose each and every element of currently pending Claims 1, 2, or 10 of the present application. Specifically, Mortara does not teach, suggest, or disclose a plate spring having a first portion fixed to a pivot arm and second portion fixed to a cover of a container. Mortara discloses the leaf spring that is not fixed to any portion of the lid, stirrup piece or arm of the pressure cooker. The leaf spring of Mortara is specifically not fixed to the lid or arm such that the leaf spring may move relative to the lid and arm for sealing the body or container at a predetermined pressure and releasing the pressure at higher pressures by moving relative to the lid. Specifically, the leaf spring is designed to move upwardly relative to the lid to release pressure through the bores when a predetermined pressure is present within the container. Accordingly, the leaf spring of Mortara is not fixed to the lid of the pressure cooker. In addition, the leaf spring is not fixed to the pivot arm as the pivot arm moves or slides relative to the leaf spring on an opposite side of the crossbeam to relieve pressure from the leaf spring or urge the leaf spring toward the lid to apply pressure to the plugs. Based upon the above, Applicants respectfully request that the Examiner reconsider and withdraw any rejection of claims 1, 2 and 10 based upon anticipation by Mortara.

Claim 3 is dependent upon claim 1. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw any rejection of claim 3 based upon anticipation by Mortara at least because of claim 3's dependence upon claim 1.

The Examiner also rejected claims 1, 2 and 10 as being anticipated by U.S. Patent No. 4,625,888 (Thompson). The Examiner argues that Thompson discloses each and every element of currently pending claims 1, 2 and 10 of the present application. Applicants respectfully traverse this rejection.

Referring to Figs. 1 and 6, Thompson is directed to a ground actuated lid operating system for a silo structure 17. The silo structure 17 includes a main support base 54 with an open mouth that is selectively covered by a pressure lid assembly 22. The pressure lid assembly 22 includes a pressure lid member 56, a seal member 68, a pair of conventional springs 58 mounted between the lid member 56 and a washer member 72, a link arm member 42 and a lid linkage assembly 20 that permits an operator on the ground to open or close the mouth of the

support base 54. The springs 76 urge the seal member 68 onto an upper edge section 64 of the main support base 54 to provide a pressure tight seal in the closed position.

As was described above, claims 1, 2 and 10 include the features of a container having an opening face, a cover which covers the opening face, a pivot arm coupled to the cover and a spring plate having a first portion fixed to the pivot arm and a second portion fixed to the cover wherein a portion of the spring plate between the first and second portions is bent.

Applicants respectfully submit that Thompson does not teach, suggest, or disclose each and every element of currently pending claims 1, 2 or 10. Specifically, Thompson does not teach, suggest or disclose a plate spring, a plate spring having a first portion fixed to a pivot arm or a plate spring with a portion that is bent between first and second portions. Thompson discloses a pair of conventional compression springs that are mounted between a washer and a cover of a pressure vessel or silo. The conventional compression springs of Thompson are not a plate spring. In addition, the conventional compression springs of Thompson are not fixed to a pivot arm, but are fixed between a washer and a pressure vessel cover. Further, the conventional compression springs of Thompson do not include a bent portion between a first portion fixed to a pivot arm and a second portion fixed to a cover. Based upon the above, Applicants respectfully request that the Examiner reconsider and withdraw any rejection of claims 1, 2 and 10 based upon anticipation by Thompson.

Claim Rejections – 35 USC § 103

The Examiner rejected claims 4, 5, 7 and 9 under 35 USC § 103(a) as being unpatentable over Mortara in view of U.S. Patent 4,680,969 (Hama). The Examiner argues that Mortara discloses each and every element of currently pending claims 4, 5, 7 and 9 except for a leaf spring comprising a plurality of plate springs, which the Examiner argues Hama discloses. The Examiner further argues that it would have been obvious to one having ordinary skill in the art to modify the plate spring of Mortara with a plurality of plate springs, as taught by Hama, in order to enhance the resilient mechanism for the spring.

Referring to Figs. 2A-6, Hama discloses an ultrasonic probe jig including an ultrasonic probe 1, a jig 10 and a control device 7. The jig 10 includes a C-shaped arm 3 pivotally mounted

to a support rod 5. A plurality of leaf springs 4 are mounted between the support rod 5 and the C-shaped arm 3. The springs 4 apply a restoration force to the arm 3 upon pivotal movement of the arm 3 about a shaft 8.

Claims 4, 5, 7 and 9 are dependent upon claim 1. As was described above, claim 1 includes the features of a container having an opening face, a cover that covers the opening face, at least one pivot arm coupled to the cover and a plate spring having a first portion fixed to the pivot arm and a second portion fixed to the cover wherein a portion of the plate spring between the first and second portions is bent.

Applicants respectfully submit that no combination of Mortara in view of Hama would disclose each and every element of currently pending claim 1 of the present application. Specifically, Applicants specifically submit that no combination of Mortara in view of Hama would disclose a plate spring having a first portion fixed to the pivot arm and a second portion fixed to the cover wherein a portion of the plate spring between the first and second portions is bent. As was described above, the leaf spring of Mortara is specifically designed such that it is not fixed to the pivoting arm or to the pressure cover. In addition, Hama does not disclose any element that may be considered a leaf spring fixed to a pivot arm and to a cover at a separate portion wherein another portion of the plate spring between the first and second portions is bent. Accordingly, no combination of Mortara in view of Hama would include a plate spring with a first portion fixed to a pivot arm, a second portion fixed to a lid and a portion between the first and second portions that is bent.

In addition, one having ordinary skill in the art would not modify Mortara in view of Hama to fix the leaf spring of Mortara to the arm or to the lid. As was described above, the leaf spring of Mortara is specifically designed to be moveable, not fixed, to the arm or cover. Fixing the leaf spring to the cover or arm of Mortara would defeat the purpose and functionality of the device and one having ordinary skill in the art would not make such a modification.

Further, the only motivation for one having ordinary skill in the art to fix a first portion of a plate spring to a pivot arm and a second portion of a plate spring to a cover wherein the plate spring includes a portion that is bent between the first and second portions is in the disclosure of

the present application. Only improper hindsight reconstruction would motivate the Examiner to fix a plate spring, as is described in the present application.

As was indicated above, claims 4, 5, 7 and 9 are dependant upon claim 1. Accordingly, based upon the above, Applicants respectfully request that the Examiner reconsider and withdraw any rejection of claims 4, 5, 7 and 9 based at least upon their dependence upon claim 1.

The Examiner further rejected claims 1-10 under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 4,516,859 (Spengler) in view of Hama. The Examiner argues that Spengler discloses each and every element of currently pending claims 1-10, except for a spring plate comprising a plurality of plate springs which are bent. The Examiner argues that Hama discloses a spring plate comprising a plurality of plate springs which are bent and it would have been obvious to one having ordinary skill in the art to modify the plate spring of Spengler with the plurality of plate springs, as taught by Hama, in order to enhance the resilient mechanism for the spring. Applicants respectfully traverse this rejection.

Referring to Figs. 1-3, Spengler is directed to a closure cover 4 for sealing a discharge opening 3 in a container 1. The cover 4 is mounted to the container 1 by a rotary shaft 5, a support arm 6, a resilient means 8 and a mounting sleeve 25. The resilient means 8 includes a solid, middle rubber portion with a bore 20 therethrough, an outer metal member 16 fixed to the support arm 6 and an inner metal member 19 fixed to the mounting sleeve 25. A pressure screw 15 is movably mounted to the support arm 6 to provide pre-stressing or pressure to the middle rubber portion of the resilient means 8 by urging the outer metal member 16 toward the inner metal member 19. In addition, an adjusting screw 17 is mounted to the support arm 6 and extends into the blind bore 20 to set a maximum compression of the middle rubber member of the resilient means 8. A rubber ring 26 is mounted to a periphery of the cover 4 to seal the opening 3 in a closed position.

In operation, the cover 4 may be pivoted between an open position (Fig. 2 – in phantom) and a closed position (Fig. 1) by pivoting the arm 6 and cover 4 about the rotary shaft 5. In the closed position, the cover 4 is positioned within the discharge opening 3 such that the rubber ring 26 seals the discharge opening 3. The adjusting screw 17 may be set to limit the compression of

the middle rubber member of the resilient means 8 and the pressure screw 15 may be adjusted to modify a pressure on the middle rubber member.

As was described above, claims 1, 2, and 10 include the features of a container having an opening face, a cover which covers the opening face, a pivot arm coupled to the cover and a plate spring having a first portion fixed to the pivot arm and a second portion fixed to the cover wherein a portion of the plate spring between the first and second portions is bent.

Applicants respectfully submit that one having ordinary skill in the art would not modify Spengler in view of Hama to construct a device having each and every element of currently pending claims 1, 2 or 10 of the present application. Applicants respectfully submit that no combination of Spengler in view of Hama would include a plate spring wherein a portion between both a first portion fixed to a pivot arm and a second portion fixed to a cover is bent. Specifically, Spengler discloses the resilient means comprised of a middle rubber section that is not bent but is a solid piece of rubber or resilient material formed between two rigid plates. The solid resilient or rubber member provides significant stability between the two plates that are fixed to the cover and arm. Therefore, the solid resilient middle member of the resilient means 8 provides stability and ensures a repeatable positioning of the cover 4 relative to the arm 6. Further, the solid resilient middle member provides a material to form the bore 20 within to accommodate the adjusting screw 17. Accordingly, one having ordinary skill in the art would not replace the solid resilient means of Spengler with the leaf spring described in Hama because the leaf spring is necessarily less stable than the solid resilient middle member described in Spengler and would not provide a solid material for the formation of the bore. One having ordinary skill in the art would realize that replacing the resilient, solid rubber member of Spengler with a leaf spring, as described in Hama, would present undesirable stability issues between the cover and arm, would not provide a material for the formation of the bore and would not replace the middle member of Spengler with the leaf spring of Hama.

In addition, there is no motivation in either Spengler or Hama to replace the resilient means including the solid rubber middle portion of Spengler with a plate spring having a bent portion between two portions fixed to a cover and an arm, respectively. The only motivation for one having ordinary skill in the art to mount a plate spring having a middle bent portion between

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two fixed portions is in the disclosure of the present application and modifying Spengler to have such a feature would require improper hindsight by the Examiner.

Based upon the above, Applicants respectfully request that the Examiner reconsider and withdraw any rejection of claims 1, 2 and 10 based upon unpatentability over Spengler in view of Hama.

Claims 3-9 are dependant upon claim 1. Applicants respectfully request that the Examiner reconsider and withdraw any rejection of claims 3-9 based upon unpatentability over Spengler in view of Hama based at least upon their dependence upon claim 1 for the above-described reasons.

CONCLUSION

In view of the foregoing Request for Reconsideration and remarks, Applicants respectfully submit that the present application, including claims 1-10, is in condition for allowance and such action as respectfully requested.

Respectfully submitted,

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